

REMARKS

Applicants thank the Examiner for total consideration given the present application. Claims 1-16 are currently pending of which claim 1 is independent. Applicants appreciate that the previous arguments filed on November 29, 2006 were found persuasive. However, claims 1-2, 5, 7, 9, and 14 now stand rejected under a new ground(s) of rejection. Applicants respectfully request reconsideration of the rejected claims in light of the remarks presented herein, and earnestly seek timely allowance of all pending claims.

ALLOWABLE SUBJECT MATTER

Applicants appreciate that claims 3, 4, 6, 8, 10-13, 15, and 16 are indicated to define allowable subject matter.

35 U.S.C. § 103 REJECTION – Ito, Edlinger, Liang

Claims 1-2, 5, 9 and 14 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ito (US 2002/0018184) (“Ito”) in view of Edlinger et al. (US 2002/0126260) (“Edlinger”). Applicants respectfully traverse. Initially, please note that on page 2, section 2, line 1 of the Office Action Examiner indicates that claim 3 is rejected. However, on page 5, sections 4 and 5, of the Office Action the Examiner indicates that claim 3 is allowable. Thus, Applicants believe including claim 3 as being rejected is merely an oversight.

For a Section 103 rejection to be proper, a *prima facie* case of obviousness must be established. *See M.P.E.P. 2142*. One requirement to establish *prima facie* case of obviousness is that the prior art references, when combined, must teach or suggest all claim limitations. *See M.P.E.P. 2142; M.P.E.P. 706 02(j)*. Thus, if the cited references fail to teach or suggest one or more elements, then the rejection is improper and must be withdrawn.

In this instance, it is respectfully submitted that the cited prior art references does not teach each and every limitation of the claims. Specifically, independent claim 1 recites, *inter alia*, **"a pivotable light polarizer arranged between the light source and the liquid crystal light valve."** *Emphasis added.*

The Examiner acknowledges that Ito fails to disclose the above-identified claim feature. Thus, the Examiner imports Edlinger to fulfill the deficiency of Ito. Particularly, the Examiner relies on *Fig. 13 and paragraph [0088]* of Edlinger to allege that Edlinger teaches a pivotable light polarizer arranged between the light source and the liquid crystal light valve. Applicants respectfully disagree.

Edlinger merely discloses a conventional light splitter and a recombining device that divides white light into red, green, and blue light and recombines them independently of polarization. Particularly, Edlinger is concerned in solving the problems associated with employing X-cube, which includes four single prisms. (*See Abstract and paragraph [0002].*) Edlinger discloses at paragraph [0088] as follows:

White light, S-polarized or both, S- and P-polarized, is incident on a polarization beam splitter 13. The coating system 10 of the beam splitter, in known manner, has the property of deflecting S-polarized light by 90.degree. and of allowing P-polarized light to pass. The P-polarized light can also be reflected back to the light source by means of a mirror (not shown). The S-polarized white light enters the X-cube 12, structured as explained in conjunction with FIG. 2 but comprising the coating system materials according to the invention. At the three emergent faces, corresponding to the three color channels, of the X-cube 12 are **provided light valves RLV^R, RLV^G, RLV^B, operating in reflection.** With a change in the polarization, the light of the particular associated spectra is there reflected back in P-polarized form onto the associated color-selective reflection coating systems, implemented according to the invention, and output after recombination by the polarization beam splitter 13. Thus the light is split in the X-cube in S-polarization into RGB and in the same X-cube recombined from RGB in P-polarization. The P-polarized light can traverse unhindered through the polarizing beam splitter 13 and is projected via projection optics onto a (not shown) screen.

In reviewing the disclosures set forth above, there simply is no teaching or suggestion in Edlinger that discloses the above-identified claim element. It is respectfully submitted that the Examiner's interpretation of the relied upon section of Edlinger is clearly erroneous. Edlinger merely discloses a conventional polarization beam splitter 13, which deflects S-polarized light by 90° and allows P-polarized light to pass. Although, the P-polarized light can be **reflected back to a light source** by means of a mirror, nowhere does Edlinger disclose that the polarization

beam splitter 13 is pivotable and arranged between the light source and a liquid crystal light valve as recited in claim 1. The three light valves RLV^R , RLV^G , RLV^B , as disclosed in Fig. 13, merely operates in reflection. Thus, these light valves are not liquid crystal light valves since liquid crystal light valves operate in transmission. (See also paragraph [0023].)¹

Therefore, at least for the reasons stated above, it is respectfully submitted that Edlinger cannot teach, "a pivotable light polarizer arranged between the light source and the liquid crystal light valve" as recited in claim 1. Since Edlinger cannot teach the above-identified claim feature, the alleged combination of Ito and Edlinger will fail.

Therefore, Applicants respectfully submit that claim 1 is patentable over Ito and Edlinger. Claims 2, 5, 9, and 14 depend from claim 1, directly or indirectly. Therefore, for at least the reasons stated with respect to claim 1, claims 2, 5, 9, and 14 are also distinguishable over the combination of Ito and Edlinger.

Claim 7 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ito in view of Edlinger and further in view of Liang et al. (US 2003/0206337) ("Liang"). Claim 7 also depends from claim 1. As demonstrated above, both Ito and Edlinger fail to teach or suggest, "a pivotable light polarizer arranged between the light source and the liquid crystal light valve" as recited in claim 1. Liang has not been, and indeed cannot be, relied upon to correct at least this deficiency of Ito and Edlinger. Accordingly, it is respectfully requested to withdraw this rejection.

¹ The use of such light valves operating in reflection has been hindered until today by problems which will be explained later. In FIG. 2 the conditions are shown which obtain when replacing conventional light valves, which, according to FIG. 1, are LCD valves operating in transmission, by light valves RLV, which are reflective light valves operating in reflection. If, to the configuration according to FIG. 1, a light valve RLV operating in reflection is connected according to FIG. 2, for example, reflected S-polarized (direction of oscillation of the E field) blue light B reflected on coating system 5 of the X-cube according to FIG. 1, is converted on the light valve RLV into P-polarized blue light and reflected back onto the coating system 5 and, again, reflected by the latter. On one and the same coating system 5, according to FIG. 2, and, analogously, for red light on system 7, reflections of light of identical spectra but different polarizations occur.

CONCLUSION


In view of the above remarks, it is believed that claims are allowable.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Ali M. Imam Reg. No. 58,755 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

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